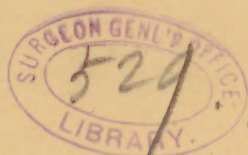


GILL (Theo.)

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THE NOMENCLATURE OF THE MYLIOBATIDÆ OR AËTOBATIDÆ.

By THEODORE GILL, M. D., PH. D.

IN 1888, President Jordan proposed, for very plausible reasons, to revive Blainville's name *Aetobatus* (used in the form *Aetobatis*) for the genus long known as *Myliobatis*.* I hastily followed him and have repented at leisure. My reasons for now dissenting are as follows:

AËTOBATUS.

Blainville, in 1816, published a new scheme for the classification of the "Selaca" or Plagiostomes (which he had studied with Mr. Prevost) and divided them into three genera or families: "I. Gen. aut Fam. Raia;" "II. Genus aut Fam. Squatina," and "III. Genus aut Fam. Squalus." The rays were subdivided into 7 groups bearing generic names: *Dasybatus* [= *Raiidæ*], *Trygonobatus* [= *Dasybatidæ* without *Urolophus*], *Aëtobatus* [= *Myliobatidæ*], *Dicerobatus* [= *Mantidæ*], *Leiobatus*† [= *Urolophus*], *Narcobatus* [= *Torpedinidæ*], *Rhinobatus* [= *Rhinobatidæ*], and *Pristobatus* [= *Pristidæ* + *Pristiophoridæ*].

Blainville gave a full and excellent diagnosis of *Aetobatus*, and included "11 nominal species of Myliobatids in the genus. They were as follows:‡ *Vulgaris* (*M. aquila* ?); *Obtusius* (?); *Flagellum* (*Ae. flagellum*); *Lobatus* (*Rhinoptera* ?); *Sinensis* (?); *Nichoffii* (*M. Nieuhoffii*); *Fili-*

* President Jordan was perfectly logical in his conclusions. *Aetobatus* was prior to *Myliobatis* and covered exactly the same group. Remembering this, but not having Blainville's memoir on hand at the time, temporarily forgetting the entire course of reasoning which had previously influenced me (herewith outlined), and fearing that prejudice in favor of accepted usage might have unduly prevailed in my mind, I noted the change, intending to consult Blainville's papers before publication, but the work could not then be found. The only reason why *Aetobatus* had not been revived before was because it was supposed to be subsequent to *Myliobatis*. (See Gray's List, p. 128, and synonymy, where *Myliobatis* is erroneously attributed to "Dum. Zool. Anal., 1806.")

† *Leiobatus* Bl. was anticipated by *Leiobatus* Raf. (Car., p. 16, 1810) = *Rhinobatus*.

‡ The initial capitals are repeated from Blainville's memoir.



caudatus (?); Hamatus (?); Ocellatus (*Ae. narinari*?); *Narinari* (*Ae. narinari*); *Forsteri*(?)

The only species of this list that can be certainly identified by name is the *narinari*, the type of the Müllerian genus *Aetobatis*. By assuming that *Nichofii* is a misprint for *Nieuhofii*, we are led to another probable identification. The other specific names are new and can only be guessed at; the results of such guesses are given in brackets after the several names, when there are good grounds for guessing. But the genus must be determined by the known species named and those belong only to the genus *Aetobatis*, M. & H.

MYLIOBATIS.

Cuvier in 1817, adopted from manuscript of Duméril the name *Myliobatis* for the same group called by Blainville *Aëtobatus*. In this course he was followed by almost all succeeding naturalists.

GENERA OF MYLIOBATIDES.

Müller and Henle in 1838 distributed the species combined under the names *Aëtobatus* or *Myliobatis* into three genera, *Myliobatis*, *Aetobatis*, and *Rhinoptera* (Cuv., 1829). They ascribed to themselves the name *Aetobatis*. This arrangement was generally adopted by later writers.

AGASSIZ'S VIEWS.

Agassiz in 1843 (Poiss. Fos., III, p. 325), took the correct view of nomenclature in the following passage:

2^o, Du genre *Aetobatis* M. et H.

M. de Blainville désigna sous le nom générique, d'*Aetobatis* l'ensemble des Mourines connues à l'époque où il publiait son ouvrage. Ce genre n'était donc alors qu'un simple synonyme du genre *Myliobates* de M. Duméril." Plus tard MM. Müller et Henle subdivisèrent ce groupe en plusieurs genres, il conservèrent le nom *Myliobates* au genre dont le *Raja aquila* des auteurs peut être considéré comme le type, et ils restreignirent le nom de *Aetobatis* au genre dont le *Narinari* de Margraf est l'espèce la plus anciennement connue.

This, it seems to me, is a perfectly legitimate view and use of the two names. Both names, *Aëtobatus* and *Myliobatis*, might have been retained for different sections of the old genus, if no other considerations had forbidden. Both of those names, however, as President Jordan has reminded me, were anticipated by a name given by Rafinesque in 1810.

CEPHALEUTHERUS.

Rafinesque, in his "Indice d'Ittiologia Siciliana," has a genus *Cephal eutherus* interposed between his *Mobula* (= *Cephaloptera* Dum.) and *Uroxis* (*Trygon* auct.), which, according to Dr. Jordan, is a *Myliobatis*.

* A less equivocal expression would be that *Myliobatis* was a synonym of *Aetobatis* since the former name (1817) was subsequent to the latter (1816).

It is not, however, mentioned by Doderlein in his very full synonyms of the *Myliobatids* of the Mediterranean, and the book in question cannot be found. While I have little doubt that Dr. Jordan is correct in his identification and that the name *Cephaleutherus* should be taken for *Myliobatis*, I defer doing so until I am able to consult the Indice or a copy of it. Meanwhile I retain the name *Myliobatis*, but adopt for the family *Aëtobatidæ*.

SYNONYMY.

The principal synonyms of the family and its primary divisions are as follows:

Family AËTOBATIDÆ.

- =*Myliobatides*, MÜLLER & HENLE, Syst. Beschreib. Plagiostomen, p. 176, 1841.
- =*Myliobatidæ*, ADAMS, Man. Nat. Hist., p. 87, 1854.
- =*Myliobatidæ*, RICHARDSON, Encycl. Brit., 8. ed., v. 12, p. 328, 1856.
- =*Myliobatoidei*, BLEEKER, Enum. Sp. Piscium Archipel. Indico, p. xiii, 1859.
- =*Myliobatoideæ*, GILL, Cat. Fishes E. Coast N. America, p. 62, 1860.
- =*Myliobatides*, A. DUMÉRIL, Hist. Nat. Poiss., v. 1, pp. 469, 631, 1865.
- <*Myliobatidæ*, GÜNTHER, Cat. Fishes Brit. Mus., v. 8, pp. 435, 488, 1870.
- =*Myliobatæ*, FITZINGER, Sitzungsber. K. Akad. der Wissensch. (Wien), B. 67, 1. Abth., p. 57, 1873.
- =*Aetobatidæ*, JORDAN, Man. Vert. An. N. U. S., 5. ed., p. 22, 1888.
- =*Rajidæ* gen. or subf. early authors.

Subfamily MYLIOBATINÆ.

- <*Myliobatini*, BONAPARTE, Nuovi Annali delle Sci. Nat., t. 2, p. 130, 1838; t. 4, p. 182, 1840.
- <*Myliobatina*, GRAY, List Fish B. M., part 1, p. 127, 1851.
- =*Myliobatina*, AGASSIZ, Proc. Boston Soc. Nat. Hist., v. 6, p. 385, 1861.
- =*Myliobatina*, GILL, Ann. Lyc. Nat. Hist. New York, v. 8, p. 136, 1865.
- <*Myliobatina*, GÜNTHER, Cat. Fishes Brit. Mus., v. 8, pp. 435, 488, 1870.
- =*Cephaleutherina*, JORDAN, Mss.

Genus MYLIOBATIS.

- =*Cephaleutherus*, RAFINESQUE, Ind. Ittiol. Sic., p. —, 1810. (Fide Jordan Mss.)
- =*Myliobatis*, (DUMÉRIL) CUVIER, Règne Animal, v. 2, p. 137, 1817.
- =*Myliobatis*, MÜLLER & HENLE, Mag. Nat. Hist., v. 2, p. 90, 1838.
- =*Myliobatis*, MÜLLER & HENLE, System. Beschreib. Plagiostomen, p. 176, 1841.
- <*Holorhinus*, GILL, Proc. Acad. Nat. Sci. Phila., v. 14, p. 331, 1862. [*Holorhinus* may hereafter be restored to generic rank, and is at least a good subgenus.]
- =*Myliobatis*, GILL, Ann. Lyc. Nat. Hist. New York, v. 8, pp. 136, 137, 1865.
- =*Aetobatis*, JORDAN, Man. Vert. An. N. U. S., 5 ed., p. 23, 1888.
- Aëtobatus* sp., BLAINVILLE.

Subfamily AËTOBATINÆ.

- =*Aëtobatina*, AGASSIZ, Proc. Boston Soc. Nat. Hist., v. 6, p. 385, 1861.
- =*Aetobatina*, GILL, Ann. Lyc. Nat. Hist. New York, v. 8, pp. 135, 136, 1865.
- Myliobatina* gen. Auct. pl.

Genus AËTOBATIS.

< *Aëtobatus*, BLAINVILLE, Journal de Physique, t. 83, p. 262, 1816.

= *Actobatis*, MÜLLER & HENLE, Mag. Nat. Hist., v. 2, p. 90, 1838.

< *Zygobates*, AGASSIZ, Rech. Poiss. Foss., v. 3, p. 328, 1843.

= *Stoasodon*, CANTOR, Cat. Malayan Fish., p. 434, 1850.

< *Goniobatis*, AGASSIZ, Proc. Boston Soc. Nat. Hist., v. 6, p. 385, 1861.

Myliobatis sp., DUMÉRII, etc.

ORIGINAL DIAGNOSIS OF AËTOBATUS.

As the works in which Blainville published his descriptions of *Aëtobatus* are inaccessible to many investigators, the description published in the Journal de Physique (vol. 83, p. 263, 1816) is here reproduced.

♂, *Aëtobatus* aut *R. Aquilæ*.

Car. Corp. cum P. P. aquilæ formi; Capite crasso non rostrato, appendice simplici anticè instructo; Oculis lateralibus; Dentibus latis, lævibus, polygonis, coalitis, palatinis; P. P. acutis, margine antico convexo, postico concavo; P. V. ut in præcedente [*Trygonobatus*]; P. S. unica ad radicem caud. sæpè longissimæ, flagelliformis, aculeo serrato armatæ, extremitate impennis.

Spec. Vulgaris; Obtusus; Flagellum; Lobatus; Sinensis; Nichofii; Filicaudatus; Hamatus; Ocellatus, Narinari, Forsteri.



